# Setting Up Your Studio Display

15-inch flat panel monitor

Apple Computer, Inc.

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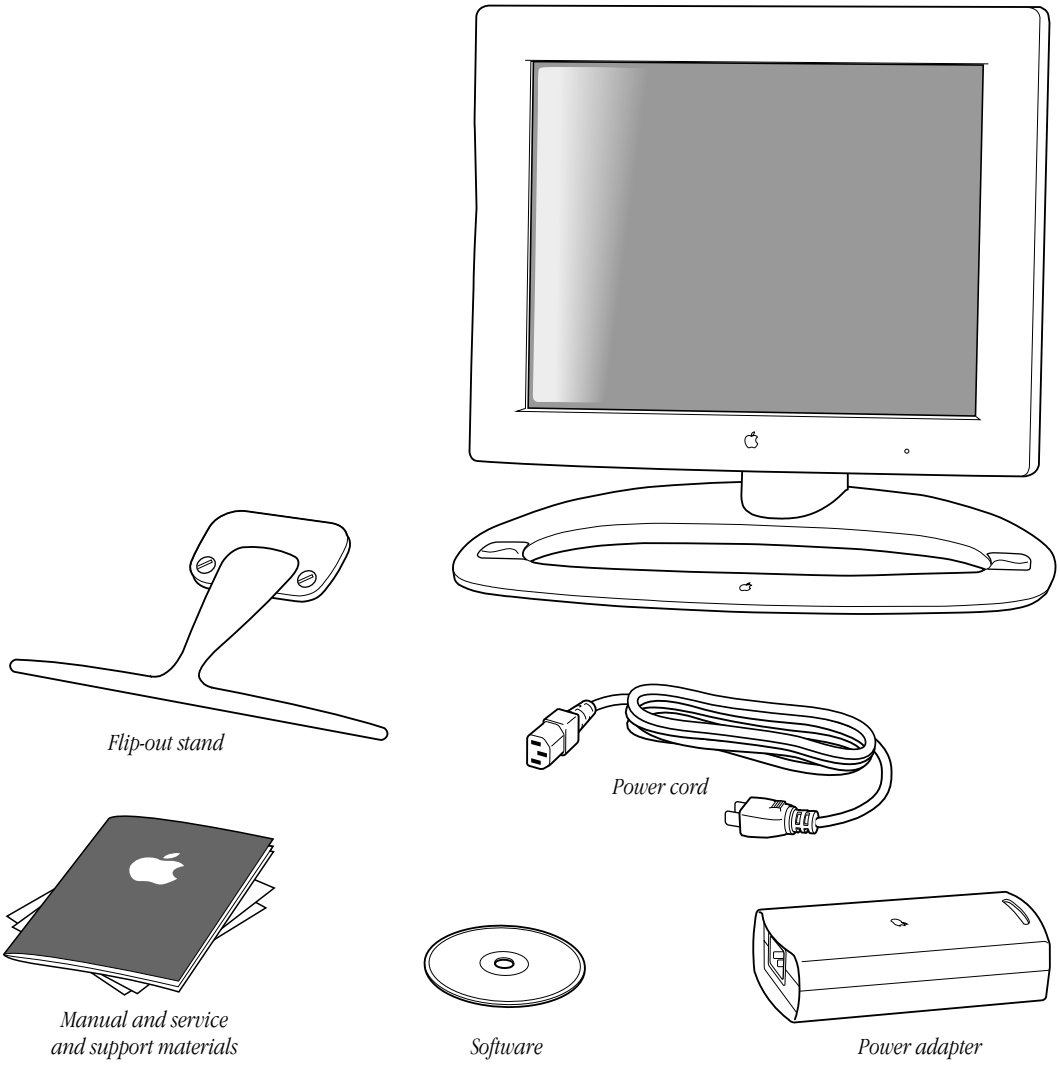

Flip-out stand
Power cord
Manual and service
and support materials
Software
Power adapter

CHAPTER 1

# About Your Apple Studio Display

## Important Safety Instructions

- Turn off the computer before setting up your Apple Studio Display. Leave the computer plugged into a grounded outlet.

  **Important** The only way to disconnect the monitor's power completely is to unplug the power cord from the computer or electrical outlet. Make sure at least one end of the power cord is within easy reach so that you can unplug the display if you need to.

- Don't press or put hard objects against the screen.
- Read all the setup instructions carefully before you plug your display into a power source.

> **Warning** Use only the power adapter that came with your display. Adapters for other computer equipment may look similar, but they may damage your display.
>
> This equipment is intended to be electrically grounded. This is a safety feature. Your power cord has a plug that has a third grounding pin. Be sure to connect it only to a grounded outlet. If you are unable to insert the plug into the outlet, contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not defeat the purpose of the grounding plug!
>
> If your power cord connects directly to the power socket on your computer, be sure that the computer is grounded.

For additional safety information, see Chapter 5, "Safety, Health, and Maintenance."

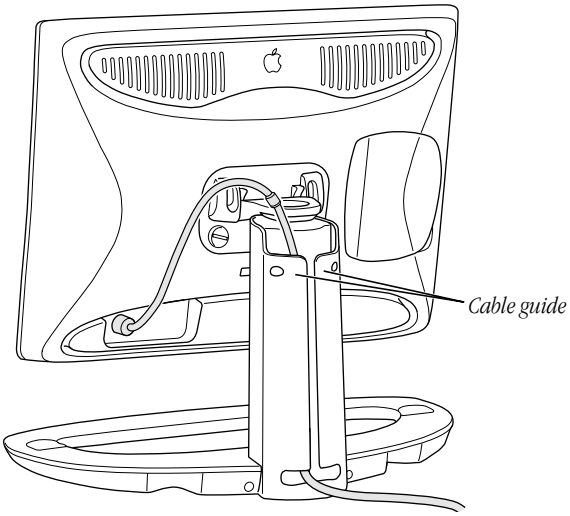
## Choosing a Good Location for Your Display

When determining where to place your display, keep the following points in mind:

- Make sure the power adapter cable, power cord, and display cables easily reach from the back of the display to your computer and an electrical outlet or power strip.
- All cables should be unobstructed when you adjust the display. If you don't allow enough clearance, the connectors might be damaged when the cables hit an obstruction.

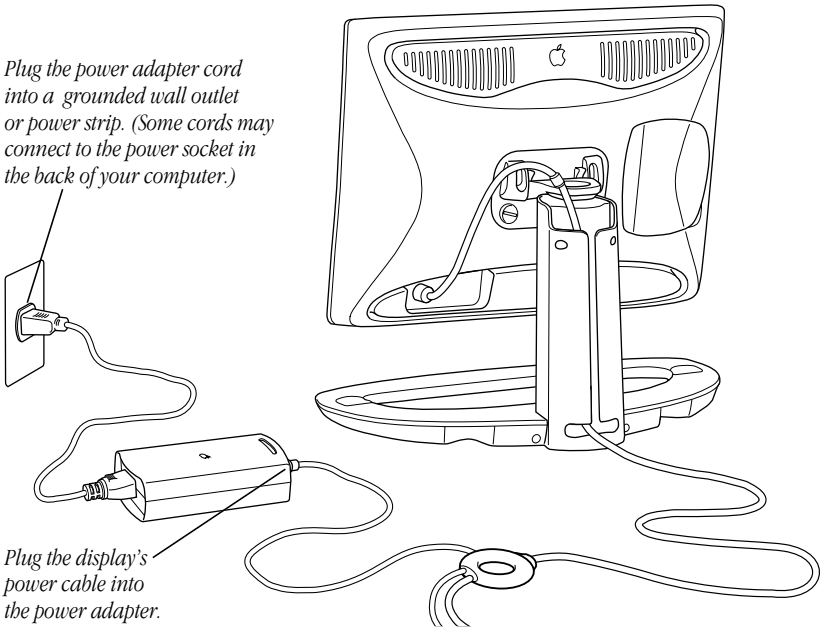
## Setting Up Your Display

### Step 1: Place the display cable in the cable guide.

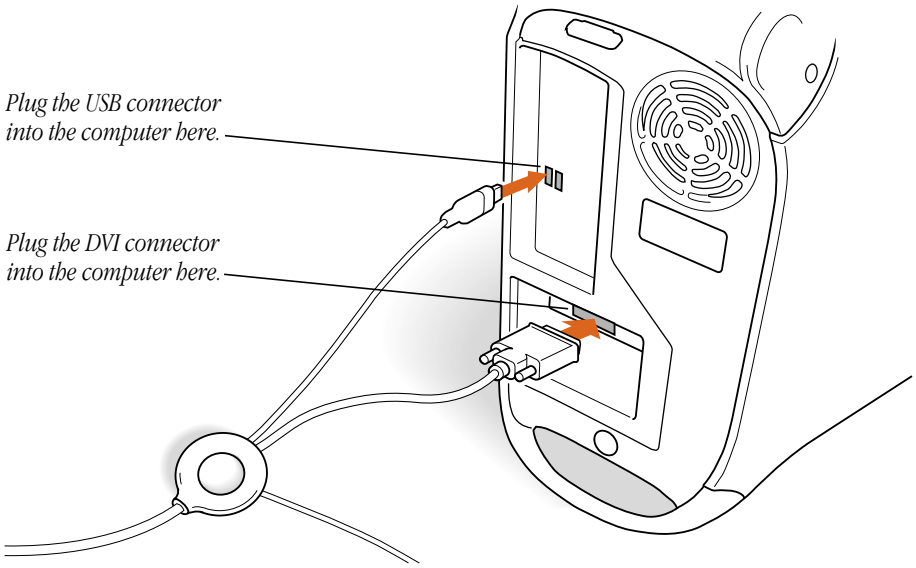



**Important** Make sure you leave some slack in the cable so you can tilt, swivel, and turn the display.

**Step 2: Plug in the display's power adapter.**


Plug the power adapter cord into a grounded wall outlet or power strip. (Some cords may connect to the power socket in the back of your computer.)
Plug the display's power cable into the power adapter.

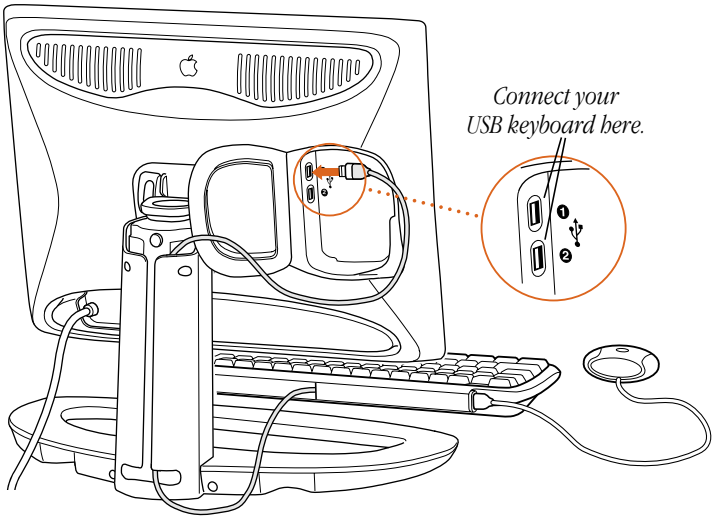
**Step 3: Plug In the display's DVI and USB connectors.**




Although your graphics card may have two monitor ports, connect your Apple Studio Display to the Digital Visual Interface (DVI) port only.

**Important** You can use only one monitor connected to your graphics card at a time.

**Step 4: Connect a USB keyboard to the display, if desired.**



### Step 5: Press the monitor power button.

Both your computer and your monitor start up. After a few moments, the Macintosh desktop appears on the screen.

If nothing appears or you see other problems, see Chapter 3, "Troubleshooting," for more information.

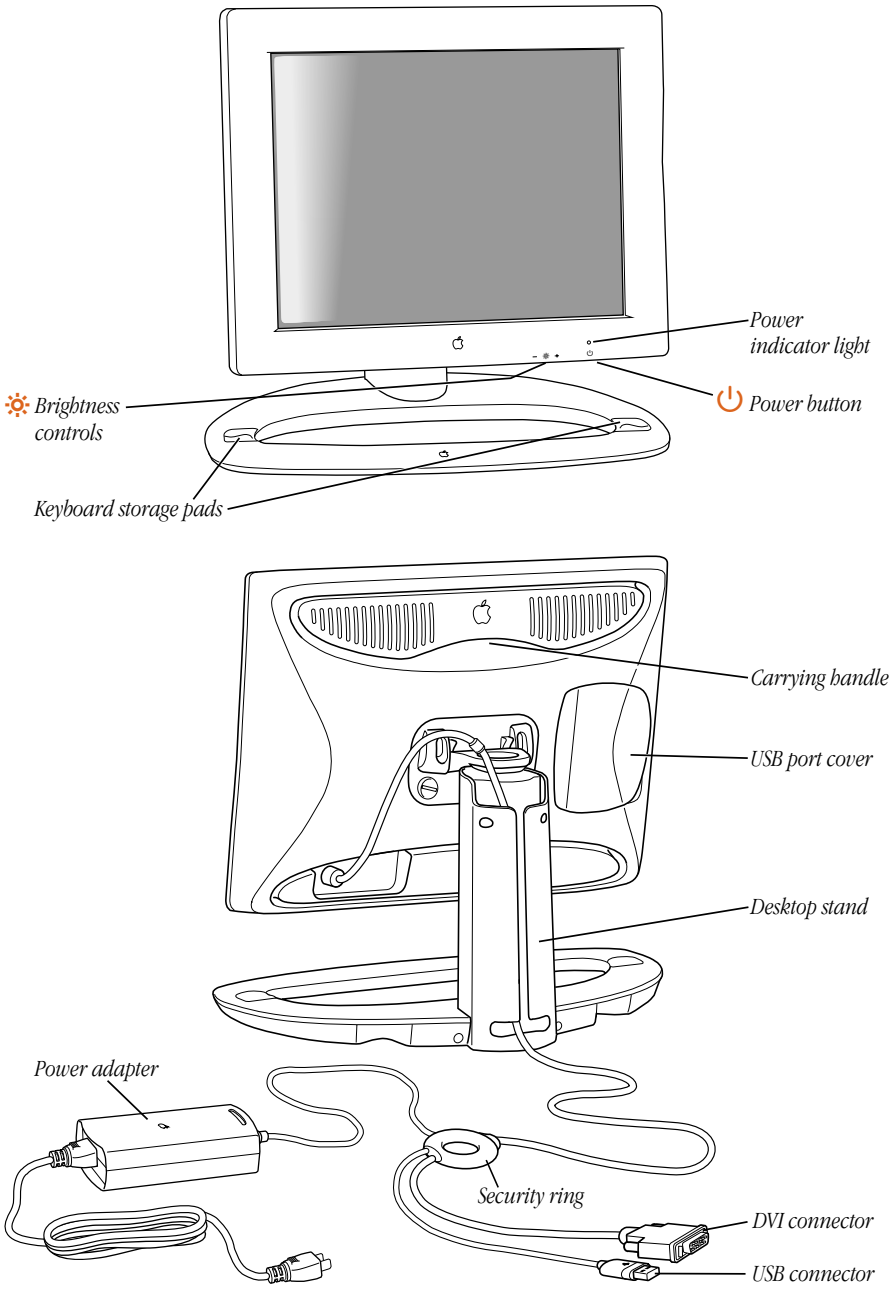
#### How Do I Turn Off the Display?

Your monitor power button shuts down or puts to sleep both your monitor and computer at the same time. Press the monitor power button again to start up or wake the monitor and computer.

You can change the power button setting so that pressing the monitor power button affects the monitor only. To change the power button setting, you use the Preferences section of the Monitors control panel. For more information about sleep settings and the Energy Saver or Monitors control panel, see Mac Help.

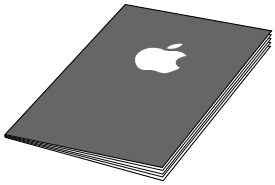
## What's Next

Congratulations—you've finished setting up your display. Next, you need to install the software that came with your display.


Power indicator light
Brightness controls
Power button
Keyboard storage pads
Carrying handle
USB port cover
Desktop stand
Power adapter
Security ring
DVI connector
USB connector

## Finding Answers

When you have questions about your display, there are several places to look for answers.



**In this manual**

Use this manual to find out how to set up your display, install the software, and find solutions to common problems.

**In Mac Help**

If you need help using the Apple Displays Software or adjusting the display, open the Help menu and choose Mac Help. Type the topic you want information about and click Search, or use the table of contents to find your topic.

**On the Internet**

Apple maintains a number of sites on the World Wide Web that provide product information, software updates, and technical support information. You can view Apple's home page at www.apple.com

**Over the telephone**

If you can't find answers in any of the materials provided, call the Apple Assistance Center. (See the service and support information that came with this display.)

CHAPTER 2

# Installing the Apple Displays Software

To install the Apple Displays Software, follow these steps:

1. Insert the *Apple Displays Software* CD into your computer's CD-ROM drive.

   The CD icon appears on the desktop.

   **Important** Make sure that you install the software from the *Apple Displays Software* CD that came with your monitor.

2. Double-click the CD icon.

   The Apple Displays Software window opens.

3. Double-click the folder that contains the language you want to use.

4. Double-click the Apple Displays Software folder.

5. Double-click the Upgrader icon to start the installation program.

6. Follow the instructions on the screen until the installation is complete.

   ***Note:*** During installation, you are presented with the terms of your software license agreement. Please read the terms carefully before you agree.

   The program checks to make sure you have the system software you need to use the display. If anything is missing, a message tells you what you need. You won't be able to install the software until you correct the problem.

   After the installation, you need to restart your computer.

7. Click Restart.

   The software is now installed and the display is ready for use.

## About Your Apple Displays Software

The Apple Displays Software is a set of files that let you adjust basic picture and color settings.

- The *Monitors control panel* lets you change the way your computer displays images. The Monitors control panel is located in the Control Panels folder in the Apple (apple) menu. For help using the Monitors control panel, open the Help menu and choose Show Balloons. For more information, see Mac Help.
- The *Sound control panel* lets you change the way your computer processes sound. You can use it to set speaker volume, select input and output devices such as microphones and speakers, and choose other settings such as alert sounds. The Sound control panel is located in the Control Panels folder in the Apple (apple) menu. For more information, see Mac Help.
- The *Control Strip* lets you quickly adjust screen resolution and color depth. For help using the Control Strip, see Mac Help.
- *DigitalColor Meter*, located in the Apple (apple) menu, lets you obtain the RGB (red, green, and blue) values your computer uses to create colors and specify these values using other color systems. For help using DigitalColor Meter, click the Help button in the upper-right corner of the DigitalColor Meter window.
- The *PANTONE® Color Picker for Apple* lets you specify PANTONE values for colors used in your documents in many application programs. In these applications, the system color picker opens automatically when a new color needs to be specified. For more information about using the PANTONE Color Picker for Apple, see Mac Help.
- *ColorSync* is Apple's unique color-matching software that ensures the colors you input (using a scanner or camera) closely match the colors you see on your screen and on the printed page. For help using ColorSync, see Mac Help.

## Adjusting the Display

You can adjust the monitor's brightness by pressing the brightness buttons on the display.

You can calibrate the display and adjust additional settings using the Monitors control panel. For more information about the Monitors control panel, choose Mac Help from the Help menu.

CHAPTER 3

# Troubleshooting

Check this section for solutions to problems you might experience with your display.

> **Warning** If you have a problem with your display and nothing presented in this manual solves it, consult the service and support information that came with your display for instructions on how to contact an Apple-authorized service provider or Apple for assistance. If you attempt to repair the display yourself, any damage you may cause to the display will not be covered by the limited warranty on your display. Contact an Apple-authorized dealer or service provider for additional information about this or any other warranty question.

**The light on the front of the monitor is flashing amber.**

The power light flashes amber when an error has been detected.

- *If you see a repeating sequence of three short flashes,* the monitor is detecting input in the wrong video format. Check that you have the correct graphics card installed and that you've installed the correct monitor software.
- *If you see a sequence of two short flashes and a long flash,* the monitor is detecting a problem with a backlighting lamp. Contact an Apple-authorized dealer or service provider for information about resolving the problem.

**No image appears on the screen.**

- Make sure the display is turned on.
- Make sure the computer is turned on.
- Make sure the power cord is plugged in properly.

  *If the display power cord is plugged into a grounded wall outlet or power strip,* check to see whether power to the outlet has been interrupted. You can test the outlet by plugging in something that you know works—like a desk lamp or radio.
- Make sure the DVI and USB display cables are connected to your computer properly.
- Make sure your computer is not in sleep.

- Make sure the brightness is set properly. The brightness control (marked by ☼) is under the right front edge of the display.

**During installation of the Apple Displays Software, a message appears, "This version of system software is not supported by the Apple Displays Software."**

- Make sure you're using the latest version of the Mac OS.
- If this message appears in the Apple Displays Software Installer, make sure you select the startup hard disk in the Installation dialog box.

**A message appears, "This monitor is not supported by this version of the Apple Displays Software."**

- Make sure you have installed the Apple Displays Software that came with your display. For installation instructions, see Chapter 2, "Installing the Apple Displays Software."

**The screen image appears dim or flickers.**

- Adjust the brightness setting. The brightness control (marked by ☼) is under the right front edge of the display.
- Calibrate the monitor using the Calibrate option of the Monitors control panel.
- The flickering could be caused by interference from a nearby power line, a fluorescent light, or an electrical device—for example, a radio, a microwave oven, or another computer. Try relocating nearby electrical devices, or moving your computer and display.

**The screen image is blurry.**

- Switch the resolution of the display using the Monitors control panel or the Control Strip. It's recommended that you choose the 1024 x 768 resolution for best results.

**No colors appear on the screen or the colors don't look right.**

- Make sure the display cables are connected firmly to the correct ports on the computer.
- You may want to calibrate your monitor using the Monitors control panel. For more information on color and your display, see Mac Help.
- Open the Monitors control panel and check if your monitor is set to display shades of gray. For more information on color and your display, see Mac Help.

**After you change the screen resolution, desktop icons move.**

- Changing the screen resolution affects the display of information on your screen. The operating system may automatically reposition icons after you change the screen resolution.

**The screen freezes.**

- If you are using both Energy Saver and a screen-saver program, the screen-saver program may be conflicting with Energy Saver. Turn off either the screen-saver program or Energy Saver, and restart your computer.

**The name of your display doesn't appear in the title bar of the Monitors control panel.**

- Make sure you've installed the Apple Displays Software that came with your display. For installation instructions, see Chapter 2, "Installing the Apple Displays Software."

**Changes in the Monitors control panel don't appear on the display.**

- Each display connected to your computer has its own Monitors control panel. Use the control panel with the name of your display in the window's title bar.
- Make sure you have installed the Apple Displays Software that came with your display. For installation instructions, see Chapter 2, "Installing the Apple Displays Software."

**You don't see an onscreen display when you press the brightness button, or you don't see power mode options in the Monitors control panel.**

- Make sure you've connected the USB connector on the display cable to the USB port on your computer. Some of the features of the Apple Displays Software require a USB connection. For more information, see "Setting Up Your Display" on page 6.
- If the Apple Displays Software is installed and you start up your computer holding the Shift key down to disable extensions, the software will not run. Restart your computer without disabling extensions to use the software.
- Reinstall the software that came with your display. For installation instructions, see Chapter 2, "Installing the Apple Displays Software."

**When you press the monitor power button, the computer shuts down or goes to sleep.**

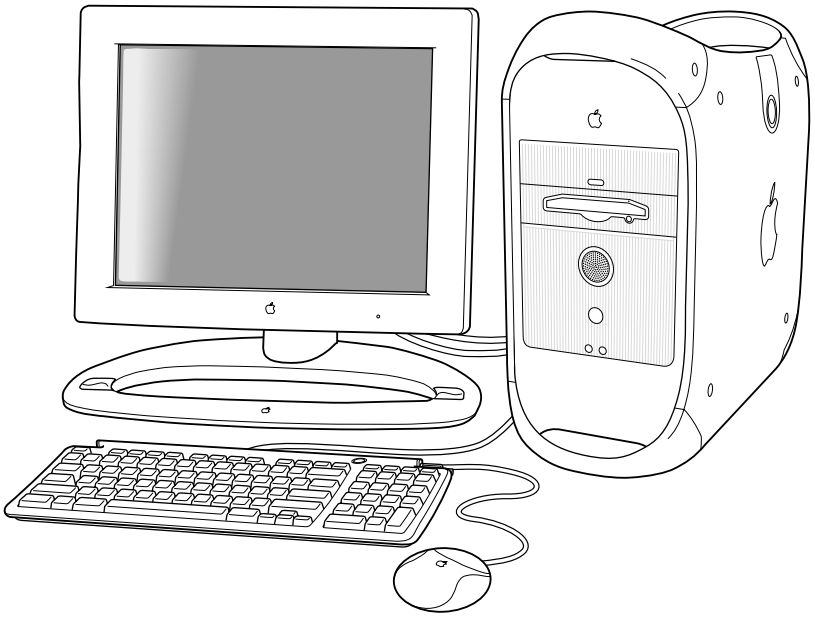
- The monitor power button shuts down or puts to sleep both the monitor and your computer. To change the monitor power button setting so that it affects the monitor only, use the Preferences section of the Monitors control panel.

CHAPTER 4

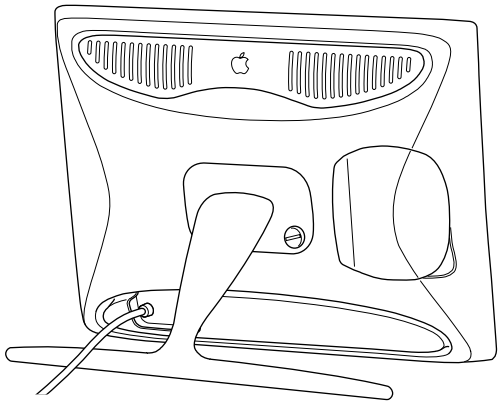
# Using Your Display Stands

You can use your display with two different stands.

- You can use the desktop stand to connect your display to a Power Macintosh computer.



- You can use the flip-out stand if you want the display to be more portable, such as when you are giving presentations.



### Positioning the Display

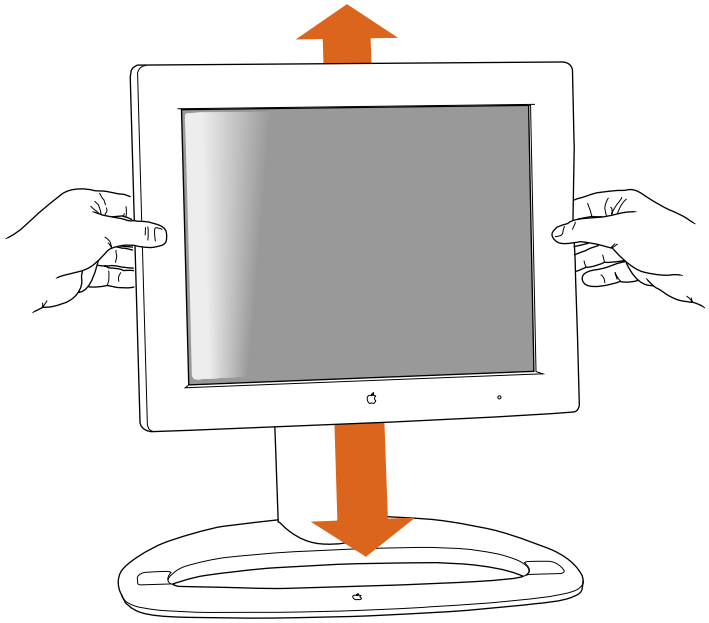
If you're using the flip-out stand, move the display on the desk or table until you can see the screen clearly; there are no height adjustments.

If you're using the display with the desktop stand, you can adjust it for your greatest comfort.

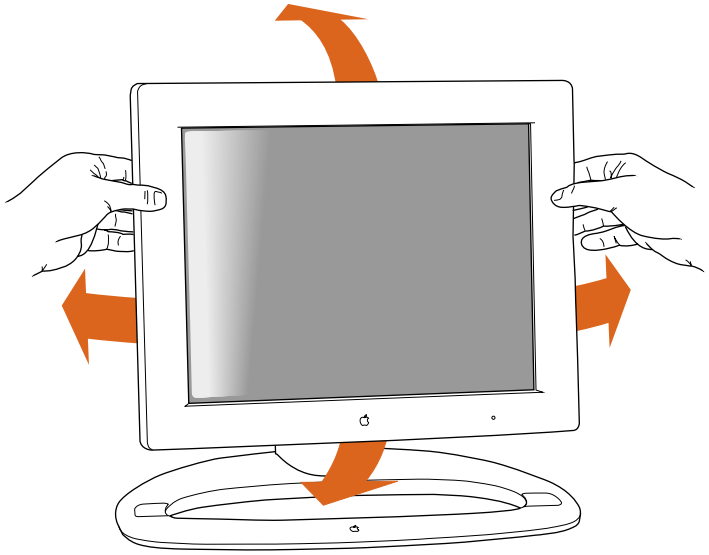
**Important** Before you adjust the display, make sure there is enough slack in the cables. If you don't allow enough clearance, the cables or connectors might be damaged.

1 Place the display so the screen faces you.

2 Adjust the height of the display by pulling up or pushing down on the display.

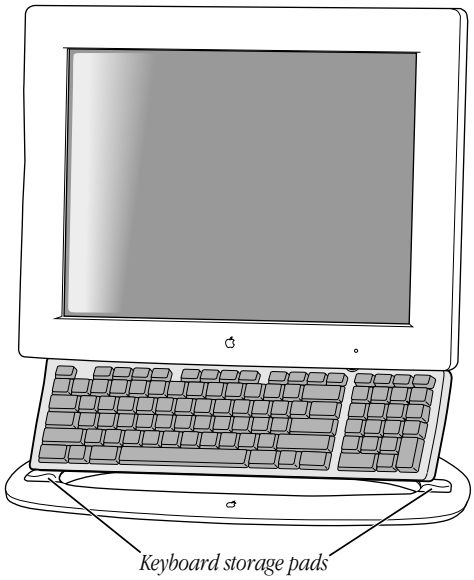


3 Adjust the viewing angle of the monitor by tilting it up or down and turning it left or right on the desktop stand.



## Storing the Keyboard

When the display is attached to the desktop stand, you can store the keyboard on the keyboard holders, small rubber indentations on the desktop stand.




## Changing the Display Stand

You can use the display with the desktop stand or with the smaller flip-out stand.

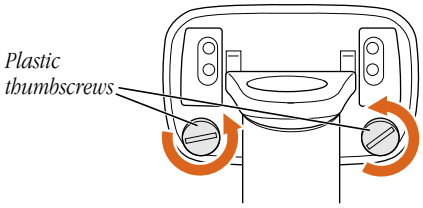
### Removing the Desktop Stand

1. Place a towel or cloth on a clean, flat surface to protect the display once it's removed from the stand.
2. Pull the display up so that the desktop stand is at its maximum height.

   If you don't do this, the desktop stand will automatically rise to its highest position when you remove the display from the stand.
3. Choose Shut Down from the Special menu to turn off your computer and monitor.
4. Unplug the power cord from the power adapter.
5. If necessary, remove the locking cable from the security slot on the back of the display.
6. Unplug the monitor's DVI and USB cables from the computer.
7. Unplug any USB cables that are attached to the USB ports on the monitor.

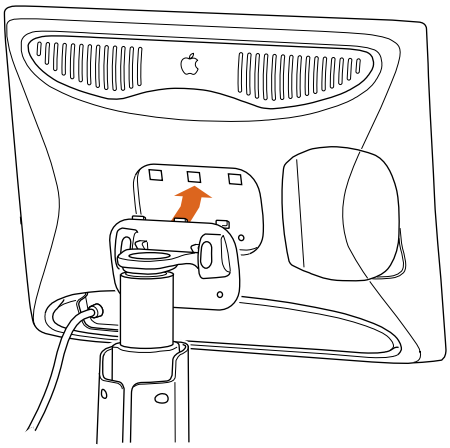
8 Remove any cables from the cable guide on the desktop stand.

9 Use a coin or flathead screwdriver to unscrew the two plastic thumbscrews on the back cover of the display.




10 Pull the display slightly up and away from the stand.

> **Warning** The desktop stand will automatically rise to its highest position, if it's not already at its maximum height. Be careful not to drop the display.



11 Place the display on a clean, flat surface.

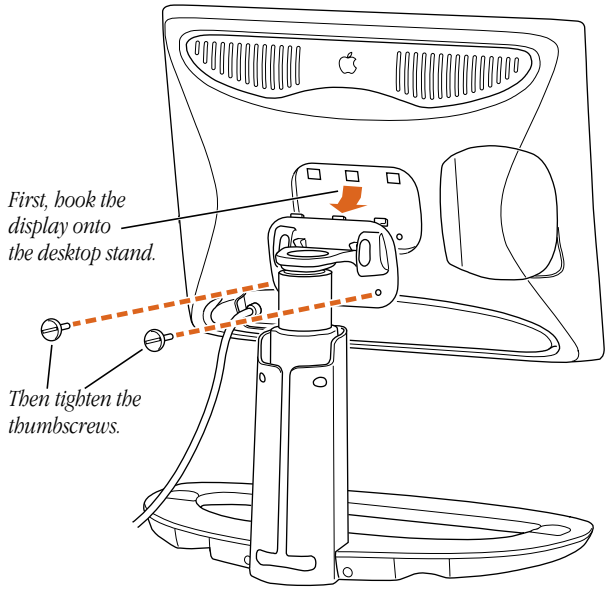
12 Store the stand in a safe place.

### Attaching the Desktop Stand

1. If necessary, remove the flip-out stand.

   For instructions, see "Removing the Flip-Out Stand" on page 25.

2. Lift the display up and hook the three plastic tabs on the top of the desktop stand into the three openings on the back center area of the display.




3. Screw in the two plastic thumbscrews on the bottom of the cover.

   Use a coin or flathead screwdriver to tighten the screws. Don't overtighten the screws; you might strip the threads.

4. Place the DVI and USB cables through the cable guide, if desired.

   **Important** Make sure you leave some slack in the cables so you can tilt, swivel, and turn the display.

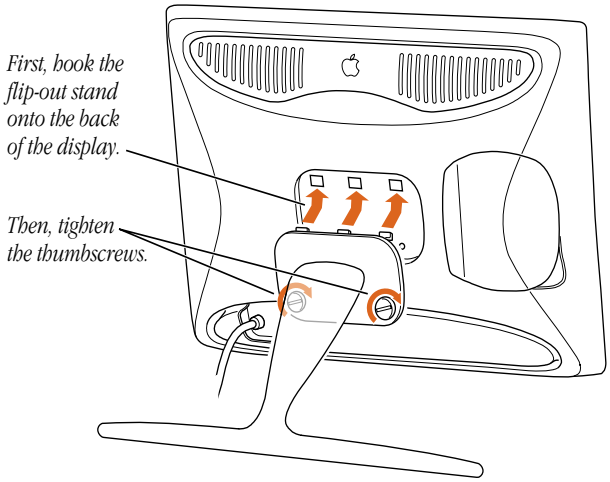
5. Connect the DVI and USB cables to the computer.
6. Connect the keyboard and mouse to the USB ports on the display, if desired.
7. If you're using a locking cable, attach it to the security slot on the back of the display.
8. If desired, use the height, tilt, and swivel adjustments to position the display the way you want.
9. Plug in the monitor's power cord.

### Attaching the Flip-Out Stand

1. If necessary, remove the desktop stand.

   For instructions, see “Removing the Desktop Stand” on page 22.

2. Hook the three plastic tabs on the top cover of the flip-out stand into the three openings on the back center area of the display.




3. Place the bottom part of the cover against the display and screw in the two plastic thumbscrews.

   Use a coin or flathead screwdriver to tighten the screws. Don’t overtighten the screws; you might strip the threads.

4. Flip out the stand and place the display with the stand on a flat surface, such as a table or desk.
5. Connect the DVI and USB cables to the computer.
6. Connect the keyboard and mouse to the USB ports on the display, if desired.
7. If desired, attach a locking cable to the security slot on the back of the display.
8. Plug in the monitor’s power cord.

### Removing the Flip-Out Stand

1. Place a towel or cloth on a clean, flat surface to protect the display once it’s removed from the stand.
2. Choose Shut Down from the Special menu to turn off your computer and monitor.
3. If necessary, lift the display up slightly and press the power button (⏻) to turn the display off.

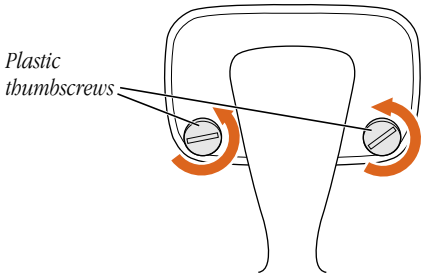
4 Unplug the power cord from the power adapter.

5 If necessary, remove the locking cable from the security slot on the back of the display.

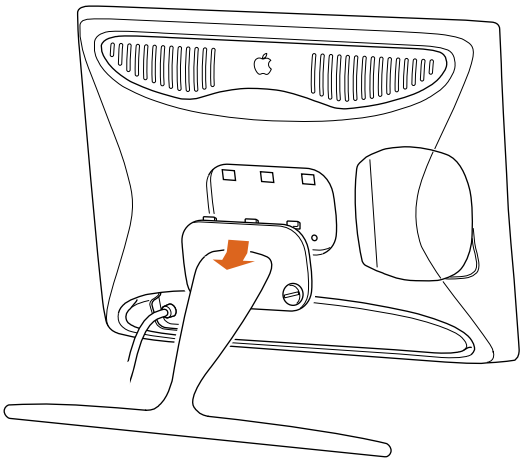
6 Unplug the monitor's DVI and USB cables from the computer.

7 Unplug any USB cables that are attached to the USB ports on the monitor.

8 Use a coin or flathead screwdriver to unscrew the two plastic thumbscrews connecting the flip-out stand to the display.




9 With one hand holding the display, use your other hand to move the flip-out stand slightly downward to disconnect the three plastic tabs from the three openings on the back center area of the display.



10 Place the display on a clean, flat surface.

11 Store the flip-out stand in a safe place.

CHAPTER 5

# Safety, Health, and Maintenance

Disconnect the power plug (by pulling the plug, not the cord) if any of the following conditions exists:

- The power cord or plug becomes frayed or otherwise damaged.
- You spill something into the case.
- Your display is exposed to rain or any other excess moisture.
- Your display has been dropped or the case has been otherwise damaged.
- You suspect that your display needs service or repair.
- You want to clean the case or screen. (Use only the recommended procedures. See "Cleaning the Screen and Case" on page 29.)

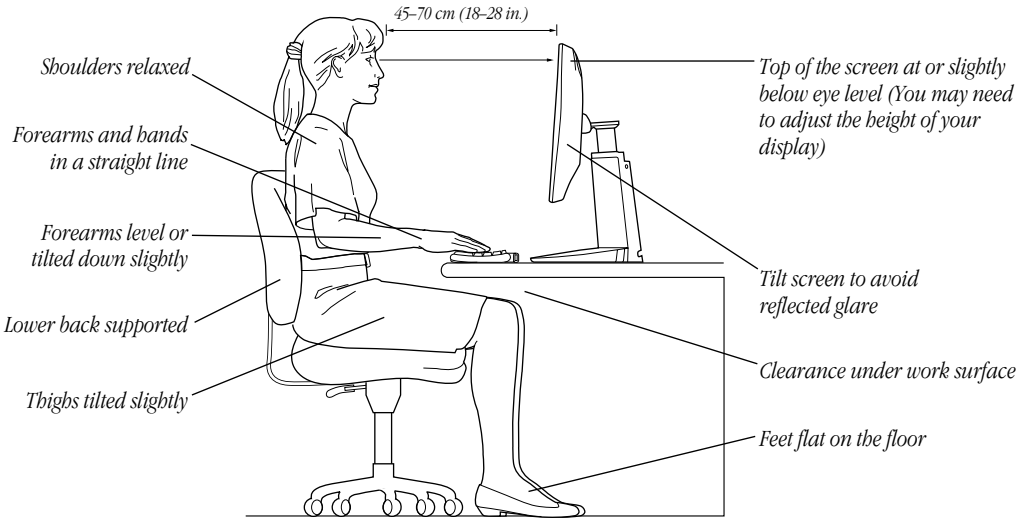
Be sure that you always follow these instructions:

- Keep your display away from sources of liquids and moisture.
- Keep the display's vents free from obstruction.
- Don't hang anything on the display.
- Keep these instructions handy for reference by you and others.
- Follow all instructions and warnings dealing with your system.

**Warning** Never remove the case from the display or power adapter! You could come in contact with hazardous voltage. Electrical equipment may be hazardous if misused. Operation of this product, or similar products, must always be supervised by an adult. Do not allow children access to the interior of any electrical product and do not permit them to handle any cables.

## Healthy Use of Your Computer Equipment

Use the following illustration to help you in positioning your monitor.


45–70 cm (18–28 in.)
Shoulders relaxed
Forearms and hands in a straight line
Forearms level or tilted down slightly
Lower back supported
Thighs tilted slightly
Top of the screen at or slightly below eye level (You may need to adjust the height of your display)
Tilt screen to avoid reflected glare
Clearance under work surface
Feet flat on the floor

Here are some guidelines for adjusting the furniture in your work area to accommodate your physical size and shape.

- An adjustable chair that provides firm, comfortable support is best. Adjust the height of the chair so your thighs are horizontal and your feet flat on the floor. The back of the chair should support your lower back (lumbar region). Follow the manufacturer's instructions for adjusting the backrest to fit your body properly.
- When you use the computer keyboard, your shoulders should be relaxed. Your upper arm and forearm should form an approximate right angle or be tilted down slightly, with your wrist and hand in roughly a straight line. Make sure the armrests of your chair don't interfere with your positioning. You may have to raise your chair so your forearms and hands are at the proper angle to the keyboard. If this makes it impossible to rest your feet flat on the floor, you can use a footrest with adjustable height and tilt to make up for any gap between the floor and your feet. Or try lowering the desktop to eliminate the need for a footrest. Another option is to use a desk with a keyboard tray that is lower than the regular work surface.
- Position the mouse at the same height as your keyboard. Allow adequate space to use the mouse comfortably to the immediate right or left.
- Position the monitor directly in front of you with the keyboard directly in line with the monitor. The best distance from your eyes to the screen is up to you, although most people seem to prefer 18 to 28 inches (45 to 70 cm).

- Position the monitor to minimize glare and reflections on the screen from overhead lights and windows. Tilt the monitor to the best angle for viewing, helping to reduce or eliminate glare from lighting sources you can't move.
- Adjust the brightness of the screen to ensure the best image quality and viewing comfort.

For more health and safety information about your computer equipment, choose Mac Help from the Help menu in the Finder. You can also see the following (English only) World Wide Web site:

- www.apple.com/about/ergonomics

## General Maintenance

To maintain your Apple Studio Display and ensure its long life:

- Do not block the display's vents.
- Do not let liquid get on or into the display.
- Do not press on the surface of the display screen.
- Do not write on the screen or touch the screen with a sharp object.
- Turn off your monitor when the computer is idle for a prolonged time.
- If you will not be using your display and computer for a day or more, turn off the computer and display or use Energy Saver.

**Important** Using a screen-saver program will reduce the lifespan of the monitor's backlighting.

### Cleaning the Screen and Case

If you need to clean the screen or case beyond wiping it down with a dry cloth, follow these instructions:

1. Turn your computer and display off.
2. Disconnect the display's power cord from the electrical outlet or power strip.
3. Disconnect the USB and DVI cables from the back of the computer.
4. Clean the screen with soft, lint-free paper or cloth dampened with mild soap and water.

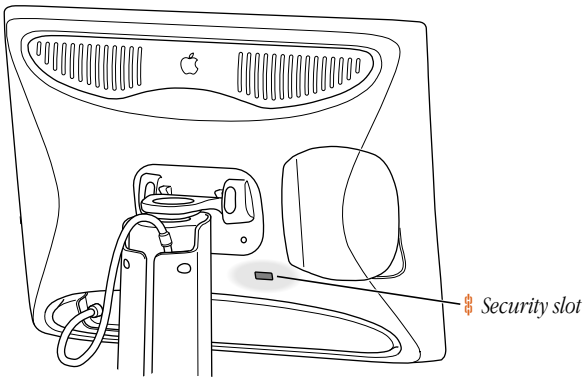
   **Warning** Do not spray liquid directly onto the display screen. Liquid could drip inside the display and cause electrical shock.

5. Wipe the case surfaces lightly with a clean, soft cloth dampened with water.

   **Warning** Don't use alcohol, aerosol sprays, solvents, or abrasives that might damage the finish on the case.

## Protecting Your Display From Theft

The back of the display has a built-in slot for connecting a security lock. This lets you attach a narrow, flexible cable that you can use to secure your display to prevent theft. Your monitor cable also has a security ring that you can use to secure your monitor. Security locks are available from an Apple-authorized dealer or computer retailer.




Follow the instructions that came with the locking cable to secure it to your display.

**Important** When you attach a locking cable, make sure you leave enough slack in other cables attached to the display. If you don't, you may damage the cables or the connectors when you adjust the position of the display.

## Do You Need to Install a Graphics Card?

Your Apple Studio Display works with a graphics card with a DVI digital-only connector. If your computer doesn't have the required graphics card, you must install one to use this display.

If you are not sure whether your computer or graphics card has the appropriate built-in video capability, check with an Apple-authorized dealer.

***Note:*** If you're using more than one display, you may need a graphics card for each display you are using.

## Conserving Energy

You can use the Energy Saver control panel to set your monitor to conserve energy after a specified period of inactivity. When Energy Saver detects that you're not using the computer, it darkens the monitor screen and reduces the amount of energy it consumes. To wake up the monitor, press any key on the keyboard. For more information about using Energy Saver, choose Mac Help or Mac OS Help from the Help menu in the Finder. Also see the documents in the TCO Information folder, located on the CD that came with your monitor, and see ENERGY STAR® compliance information in "Power-Saving and Environmental Features" on page 33.

APPENDIX

# Technical Information

## General Specifications

### Screen

- 15.1-inch (38.4 centimeters) viewable diagonal image, 307 millimeters (mm) horizontal x 230 mm vertical
- 1024 horizontal x 768 vertical active pixels
- *Color depth:* 8 bit/color, 24 bit

### Desktop Stand

- *Tilt adjustment:* –10 degrees downward and +45 degrees upward
- *Swivel adjustment:* ±45 degrees
- *Height adjustment:* 4.4 inches (110 mm)

## Power-Saving and Environmental Features

The color of the power indicator light on the front of the monitor indicates the operating mode:

| Power mode | Power indicator | Power consumption | Mac OS Energy Saver mode |
|---|---|---|---|
| On | Green | <40 watts (W) | Normal |
| Standby/ Suspend | Amber | <15/5 W | Monitor sleep |
| Off | Off | <5 W | System sleep |

For instructions on adjusting the system and display sleep settings and additional energy-conservation information, see Mac Help.

- *TCO/NUTEK:* This product has been certified by TCO (the Swedish Confederation of Professional Employees) to meet the standards for ergonomics, energy efficiency (NUTEK), emissions, and ecology.
- *MPR II:* This product meets the strict limits for reduced electromagnetic and electrostatic emissions.
- *ENERGY STAR®:* As an ENERGY STAR® partner, Apple Computer has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. The United States Environmental Protection Agency's ENERGY STAR® program is a partnership with office product equipment manufacturers to promote energy-efficiency. Reducing energy consumption of office products saves money and reduces pollution by eliminating wasted energy.

### Weight

- *Display:* 6 pounds (2.7 kilograms)
- *Desktop stand:* 4.6 pounds (2.08 kilograms)

### Dimensions of Display (With Desktop Stand)

- *Minimum height:* 15.0 inches (in.) ± 0.2 in. (375 mm ± 5 mm)
- *Maximum height:* 19.3 in. ± 0.2 in. (483 mm ± 5 mm)
- *Width:* 15.7 in. ± 0.2 in. (393.6 mm ± 5 mm)
- *Depth:* 9.8 in. ± 0.2 in. (249 mm ± 5 mm)

### Dimensions of Display (With Flip-Out Stand)

- *Height:* 11.6 in. ± 0.2 in. (297 mm ± 5mm)
- *Width:* 15.7 in. ± 0.2 in. (393.6 mm ± 5 mm)
- *Depth:* 6.9 in. ± 0.2 in. (184.5 mm ± 5 mm)

### Temperature

- *Operating:* 50° to 95° F (10° to 35° C)
- *Storage (up to 6 months):* –4° to 140° F (–20° to 60° C)
- *Shipping (up to 72 hours):* –40° to 149° F (–40° to 65° C)

### Humidity (Noncondensing)

- *Operating:* 20% to 80%
- *Storage (up to 6 months):* 20% to 80%
- *Shipping (up to 72 hours):* 20% to 80%

### Altitude

- *Operating:* 0 to 10,000 feet (0 to 3,030 meters)
- *Shipping:* 0 to 35,000 feet (0 to 10,606 meters)

### Active Video Image Area

The recommended resolution for your monitor is 1024 x 768. You can choose other standard resolutions that are scaled to fit your monitor's screen size. Resolutions supported for computer input:

| Input resolution | Output size from scaler | Vertical refresh rate (Hertz) |
|---|---|---|
| 640 x 480 | 1024 x 768 | 75.0 |
| 800 x 600 | 1024 x 768 | 75.0 |
| 1024 x 768 | 1024 x 768 | 60 |

***Note:*** The number of resolutions that your computer supports may be different from those listed here. Your computer may not support all resolutions.

### Power Adapter Electrical Requirements

- *Input:* 100–240 volts (V) alternating current, 50–60 hertz (Hz) 1.2 amp
- *Output:* 24 V direct current, 1.875 amp

### Interfaces

- Two self-powered USB ports supporting USB input devices (such as a keyboard, mouse, or trackball)
- *VESA Display Data Channel (DDC)™ Standard:* This display supports VESA DDC 2B.

## Display Cable Specifications

- DVI digital-only connector

  The digital-only connector contains 24 signal contacts organized in three rows of 8 contacts.

| Pin | Signal assignment | Pin | Signal assignment | Pin | Signal assignment |
|---|---|---|---|---|---|
| 1 | TMDS Data2- | 9 | TMDS Data1- | 17 | TMDS Data0- |
| 2 | TMDS Data2+ | 10 | TMDS Data1+ | 18 | TMDS Data0+ |
| 3 | TMDS Data2 Shield | 11 | TMDS Data1 Shield | 19 | TMDS Data0 Shield |
| 4 | No Connect | 12 | No Connect | 20 | No Connect |
| 5 | No Connect | 13 | No Connect | 21 | No Connect |
| 6 | DDC Clock | 14 | +5 V Power | 22 | TMDS Clock Shield |
| 7 | DDC Data | 15 | Ground (for +5 V) | 23 | TMDS Clock + |
| 8 | No Connect | 16 | Hot Plug Detect | 24 | TMDS Clock - |

## Communications Regulation Information

### FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. See instructions if interference to radio or television reception is suspected.

### Radio and Television Interference

The equipment described in this manual generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Apple's instructions—it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether your computer system is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices.

If your computer system does cause interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer into an outlet that is on a different circuit from the television or radio. (That is, make certain the computer and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult an Apple-authorized service provider or Apple. See the service and support information that came with your Apple product. Or, consult an experienced radio/television technician for additional suggestions.

**Important** Changes or modifications to this product not authorized by Apple Computer, Inc., could void the FCC Certification and negate your authority to operate the product.

This product was tested for FCC compliance under conditions that included the use of Apple peripheral devices and Apple shielded cables and connectors between system components. It is important that you use Apple peripheral devices and shielded cables and connectors between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices. You can obtain Apple peripheral devices and the proper shielded cables and connectors through an Apple-authorized dealer. For non-Apple peripheral devices, contact the manufacturer or dealer for assistance.

*Responsible party (contact for FCC matters only):* Apple Computer, Inc., Product Compliance, 1 Infinite Loop M/S 26-A, Cupertino, CA 95014-2084, 408-974-2000.

### Industry Canada Statement

This Class B device meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

### VCCI Class 2 Statement

### 情報処理装置等電波障害自主規制について

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取扱説明書に従って正しい取り扱いをしてください。